STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION



JOHN ELIAS BALDACCI GOVERNOR

DAVID P. LITTELL ACTING COMMISSIONER

December 30, 2005

Mr. Andrew Stackpole Environmental Program Director Commander Navy Region Northeast Naval Submarine Base New London, Box 101 Groton, CT. 06349

RE:

Maine Pollutant Discharge Elimination System (MEPDES) Permit #ME0002097

Maine Waste Discharge License (WDL) Application #W003318-5R-C-R

Final Permit/License

Dear Mr. Stackpole:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL which was approved by the Department of Environmental Protection. Please read the permit/license and its attached conditions carefully. You must follow the conditions in the order to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "Appealing a Commissioner's Licensing Decision."

If you have any questions, please feel free to call me at 287-7693.

Sincerel

Gregg Wood

Division of Water Quality Management Bureau of Land and Water Quality

Enc.

cc:

Clarissa Trasko, DEP/EMRO

David Wohata HCEDA



STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

NAVAL COMPUTER AND)	MAINE POLLUTANT DISCHARGE
TELECOMMUNICATIONS AREA 1	MASTER)	ELIMINATION SYSTEM PERMIT
STATION ATLANTIC DETACHME	ENT CUTLER)	
CUTLER, WASHINGTON COUNTY	, MAINE)	AND
COOLING WATER/NON-PROCESS)	71112
ME0002097)	WASTE DISCHARGE LICENSE
W003318-5R-C-R	APPROVAL)	RENEWAL

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et seq. and Maine Law 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Department of Environmental Protection (the Department hereinafter) has considered the application of the NAVAL COMPUTER AND TELECOMMUNICATIONS AREA MASTER STATION ATLANTIC DETACHMENT CUTLER (NCTAMSLANT DET hereinafter) with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The permittee has applied to the Department for renewal of WDL #W003318-5R-B-R, that was issued on December 22, 2000, and expired on December 22, 2005. The WDL approved the discharge of a daily maximum of 1.584 million gallons per day (MGD) of contact and non-contact cooling water, boiler blowdown, waste from a reverse osmosis unit, storm water and ground water from an electrical generating facility to Machias Bay, in Cutler, Maine.

MODIFICATIONS REQUESTED

The permittee has requested the Department approve the discharge from two new outfalls. Both discharges will consist of seawater used for the cooling for two emergency generators.

PERMIT SUMMARY

Regulatory: On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. On October 30, 2003, after consultation with the U.S. Department of Justice, the USEPA extended Maine's NPDES program delegation to all but two tribally-owned discharges. The extent of Maine's delegated authority is under appeal at the time of this permitting action. The program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program and permit #ME0002097 (same as the NPDES permit number) will be utilized as the primary reference number for the NCTAMSLANT DETs MEPDES permit. Upon issuance of the MEPDES permit, all terms and conditions of the NPDES permit last issued by the EPA on October 8, 1974 are null and void.

<u>Terms and Conditions</u>: This permitting action is carrying forward the following terms and conditions of the previous licensing action with the following exceptions:

- 1) Establishing daily maximum mass limitations for total suspended solids (TSS) for Outfall #001 and Outfall #002.
- 2) Reducing the monitoring frequency for total residual chlorine (TRC) from 1/Day to 1/Week for Outfall #001. Monitoring is only required when elemental chlorine or chlorine based compounds are utilized as a biocide.
- 3) Revised the daily maximum concentration limitation for TRC for Outfall #001 from 0.1 mg/L to 1.0 mg/L due to technical error in the previous licensing action.
- 4) Authorizing the discharge of non-contact cooling waters from two emergency generator units designated as Outfall #003 and Outfall #004. This permitting action establishes daily maximum flow and oil & grease limitations for said outfalls.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated November 29, 2005, and subject to the Conditions listed below, the Department makes the following conclusions:

- 1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
- 2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
- 3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:
 - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
 - (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
 - (c) The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
 - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and
 - (e) Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
- 4. The discharge will be subject to effluent limitations that require application of best practicable treatment.

ACTION

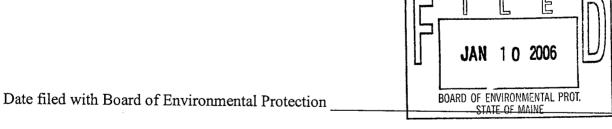
THEREFORE, the Department APPROVES the above noted application of NAVAL COMPUTER AND TELECOMMUNICATIONS AREA MASTER STATION ATLANTIC DETACHMENT CUTLER to discharge up to 1.548 MGD of contact and non-contact cooling water, boiler blowdown, waste from a reverse osmosis unit, miscellaneous non-process waste waters, storm water and ground water to Machias Bay, Class SB, in Cutler, Maine, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

- 1. "Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits," revised July 1, 2002, copy attached.
- 2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
- 3. This permit expires five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS ZODAY OF 1 2005
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BY: David Littell, Acting Commissioner
PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application November 22, 2005

Date of application acceptance November 24, 2005



This order prepared by Gregg Wood, Bureau of Land and Water Quality.

W33185RC

12/29/05

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W003318-5R-C-R

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

discharge treated contact cooling waters, non-contact cooling waters, miscellaneous non-process waste waters, ground water and During the period beginning with the effective date of this permit and lasting through permit expiration, the permittee is authorized to storm water run-off⁽¹⁾ from Outfall #001 to the tide waters of Machias Bay. Such discharges shall be limited and monitored by the permittee as specified below:

OUTFALL #001 - Cooling Waters & Non-Process Waste Waters

Effluent Characteristic		Disch	Discharge Limitations		Monitor	Minimum Monitoring Requirements
	Monthly Average as specified	Daily Maximum as specified	Monthly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type
Flow [sooso]	;	1		1.584 MGD <i>[07]</i>	1/Month (01/30)	Calculate ICAI
Total Suspended Solids		660 lbs/day <i>[26]</i>	1	50 mg/L (19)	1/Month/01/30]	Grab <i>Існ</i> ј
Temperature (00011)	1		***	75°F (19)	1/Month/01/30)	Grab (GR)
Total Residual Chlorine	ļ	I	-	1.0 mg/L (19)	1/Week ⁽²⁾ _[01/07]	Grab (GR)
Oil & Grease (01051)		i	:	15 mg/L (19)	1/Month [01/30]	Grab _(GR)
pH (00400)	:	:	1	6.0 – 8.5 SU (12)	1/Month (01/30)	Grab (GR)

Footnotes:

(1) The discharge from the transit tank oil/water separator, to the cooling water pond, shall consist only of stormwater runoff which is collected and There shall be no discharge of tank bottom water alone or in combination with storm water discharge or other waste waters through this outfall. petroleum product pipelines, transport tanks, vessels, or storage tanks is not authorized by this permit. No dispersants, detergents, chemicals or discharged through a properly maintained and efficiently operated oil/water separator. The direct or indirect discharge of liquids drawn from emulsifiers shall be added to the wastewater discharge stream contributing flow to the separator and/or the collection and treatment system.

(2) Monitoring for TRC is only required when elemental chlorine or chlorine based compounds are utilized as a biocide. The permittee shall enter NODI-9 on the line for TRC on the monthly DMR when discharging but not utilizing elemental chlorine or chlorine based compounds.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

During the period beginning with the effective date of this permit and lasting through permit expiration, the permittee is authorized to discharge treated storm water runoff from the tank farm from Outfall #002 to the tide waters of Machias Bay. Such discharges shall be limited and monitored by the permittee as specified below: 5.

OUTFALL #002 - Storm Water Run-off

Effluent Characteristic		Dis	Discharge Limitations		Monit	Minimum Monitoring Requirements
	Monthly Average as specified	Daily <u>Maximum</u> as specified	Monthly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow [50050]	-		i i	375 gpm <i>[78]</i>	1/Month [01/30]	Calculate _{ICAJ}
Oil & Grease			-	15 mg/L[19]	1/Month [0130]	Grab (GR)
Total Suspended Solids	}	225 lbs/day _[26]	1	50 mg/L [19]	1/Month _[01/30]	Grab _(GR)

Footnotes:

oil/water separator. The direct or indirect discharge of liquids drawn from petroleum product pipelines, transport tanks, vessels, or storage tanks (1) The discharge shall consist only of stormwater runoff which is collected and discharged through a properly maintained and efficiently operated contributing flow to the separator and/or the collection and treatment system. There shall be no discharge of tank bottom water alone or in is not authorized by this license. No dispersants, detergents, chemicals or emulsifiers shall be added to the wastewater discharge stream combination with storm water discharge or other waste waters.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

discharge non-contact cooling waters from Outfall #003 and Outfall 004 to the tide waters of Machias Bay. Such discharges shall be 3. During the period beginning with the effective date of this permit and lasting through permit expiration, the permittee is authorized to limited and monitored by the permittee as specified below:

OUTFALL #003 - Non-contact cooling waters - 52 HP Emergency Generator

Effluent Characteristic		Dis	Discharge Limitations			Minimum
					Monite	Monitoring Requirements
	Monthly	Daily	Monthly	Daily	Measurement	Sample
	<u>Average</u>	Maximum	Average	Maximum	Frequency	Type
	as specified	as specified	as specified	as specified	as specified	as specified
Flow	1	1	1	10 gpm /78/	1/Week 101/071	Calculate (CA)
[50050]						F 10.7
Oil & Grease	1	l	!	15 ma/L/19/	1/Week 101/071	Grab (GR)
[00011]						

OUTFALL #004 - Non-contact cooling waters - 120 kW Emergency Generator

Effluent Characteristic		Dis	Discharge Limitations			Minimum
					Monit	Monitoring Requirements
	Monthly	Daily	Monthly	Daily	Measurement	Sample
	Average as specified	Maximum as specified	Average as specified	<u>Maximum</u>	Frequency	Type
	33.	50000	polloodoon	DOLLONG CD	as specified	da apecilied
Flow	l		1	10 apm //8/	1/Week 101/071	Calculate 1047
[50050]						
,						
Oil & Grease	i	1	-	15 mg/L/19J	1/Week [01/07]	Grab (GR)
[00011]					•	•

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

Sampling —Sampling and analysis must be conducted in accordance with; a) methods approved in 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.

B. NARRATIVE EFFLUENT LIMITATIONS

- 1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usage's designated by the classification of the receiving waters.
- 2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usage's designated by the classification of the receiving waters.
- 3. The discharge shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated by the classification of the receiving waters.
- 4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. OIL/WATER SEPARATOR MAINTENANCE

- 1. The permittee shall maintain an up-to-date Operations and Maintenance (O&M) plan for all oil/water separators. The O&M plan shall be kept on site and made available to regulatory personnel for inspection upon request.
- 2. The oil/water separators shall be inspected monthly, and skimmed annually or more often if necessary to maintain the design operating efficiency of the oil/water separator. The oil/water separators shall be cleaned every three years or more often if necessary to maintain the design operating efficiency of the oil/water separators.

D. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge to the tidal water of Machias Bay in accordance with the terms and conditions of this permit. Discharges of waste water from any other point source not identified in the application for the permit renewal are not authorized under this permit and shall be reported in accordance with Standard Condition B(5) (Bypass) of this permit.

E. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall notify the Department of the following.

- 1. Any substantial change in the volume or character of pollutants being introduced into the waste water treatment system(s) and or discharged.
- 2. For the purposes of this section, adequate notice shall include information on:
 - (a) the quality and quantity of waste water introduced to the waste water treatment system; and
 - (b) any anticipated impact of the change in the quantity or quality of the waste water to be discharged from the treatment system.

F. MONITORING AND REPORTING

Monitoring results shall be summarized and reported on separate Discharge Monitoring Report Forms provided by the Department at a frequency of 1/Month and postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMRs are received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. A signed copy of the Discharge Monitoring Report and all other reports required herein shall be submitted to the following address:

Department of Environmental Protection
Eastern Maine Regional Office
Bureau of Land and Water Quality
Division of Water Quality Management
106 Hogan Road
Bangor, Maine 04011

G. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of test results required by this permit, new site specific information or any other pertinent information gathered during the term of this permit, the Department may, at anytime and with notice to the permittee, modify this permit to: (1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded: (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

H. SEVERABILITY

In the event that any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

AND

MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: November 29, 2005

PERMIT NUMBER: ME0002097

LICENSE NUMBER: W003318-5R-C-R

NAME AND ADDRESS OF APPLICANT:

Commander Navy Region Northeast Naval Submarine Base New London Box 101 Groton, CT. 06349

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Naval Computer And Telecommunications Area Master Station Atlantic Detachment Cutler (NCTAMSLANT DET) 175 Ridge Road Cutler, ME. 04626

RECEIVING WATER/CLASSIFICATION:

Tidewaters of Machias Bay/ Class SB

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: Mr. Andrew Stackpole

Environmental Program Director

(860) 694-3976

Email: Andrew.stackpole@navy.mil

FACILITY CONTACT:

Normand Laberege, P.E. Environmental Engineer (207) 259-8282

Email: labergen@nctscut.navy.mil

1. APPLICATION SUMMARY

The permittee has applied to the Department for renewal of WDL #W003318-5R-B-R, that was issued on December 22, 2000, and expired on December 22, 2005. The WDL approved the discharge of a daily maximum of 1.584 million gallons per day (MGD) of contact and non-contact cooling water, boiler blowdown, waste from a reverse osmosis unit, storm water and ground water from an electrical generating facility to Machias Bay, in Cutler, Maine. See Attachment A of this Fact Sheet for a location map for the facility.

2. MODIFICATIONS REQUESTED

The permittee has requested the Department approve the discharge from two new outfalls. Both discharges will consist of seawater used for the cooling for two emergency generators.

3. PERMIT SUMMARY

- a. Regulatory: On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (USEPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine, excluding areas of special interest to Maine Indian Tribes. On October 30, 2003, after consultation with the U.S. Department of Justice, the USEPA extended Maine's NPDES program delegation to all but two tribally-owned discharges. The extent of Maine's delegated authority is under appeal at the time of this permitting action. The program has been referred to as the Maine Pollutant Discharge Elimination System (MEPDES) permit program and permit #ME0002097 (same as the NPDES permit number) will be utilized as the primary reference number for the Naval Computer And Telecommunications Area Master Station Atlantic Detachment Cutler (NCTAMSLANT DETs MEPDES permit. Upon issuance of the MEPDES permit, all terms and conditions of the NPDES permit last issued by the EPA on October 8, 1974 are null and void.
- b. <u>Terms and Conditions</u>: This permitting action is carrying forward the following terms and conditions of the previous licensing action with the following exceptions:
 - 1. Establishing daily maximum mass limitations for total suspended solids (TSS) for Outfall #001 and Outfall #002.
 - 2. Reducing the monitoring frequency for total residual chlorine (TRC) from 1/Day to 1/Week for Outfall #001. Monitoring is only required when elemental chlorine or chlorine based compounds are utilized as a biocide.
 - 3. Revised the daily maximum concentration limitation for TRC for Outfall #001 from 0.1 mg/L to 1.0 mg/L due to technical error in the previous licensing action.
 - 4. Authorizing the discharge of non-contact cooling waters from two emergency generator units designated as Outfall #003 and Outfall #004. This permitting action establishes daily maximum flow and oil & grease limitations for said outfalls.
- c. <u>History</u> Relevant regulatory actions for the discharge from the NCTAMSLANT DET facility in Cutler include the following:

October 8, 1974 – The USEPA issued NPDES permit #ME0002097 for a five-year term.

April 15, 1986 - The Department issued WDL #W003318-45-A-R for a five-year term.

December 22, 2000 - The Department issued WDL #W003318-5R-B-R for a five-year term.

November 22, 2005 – The permittee submitted a timely and complete application to the Department to renew the WDL for the Cutler facility.

d. Source Description: The previous licensing action contained the following text that: The Naval Telecommunications Detachment in Cutler generates electricity with 6 diesel engine powered generating units. Each diesel engine has a closed loop cooling system ("contact" cooling water) containing fresh water which is cooled by an intermediate cooling system via a heat exchanger. The water in the intermediate cooling system is fresh water. Each intermediate cooling water system is cooled by a heat exchanger containing salt water from Machias Bay. Saltwater from Machias Bay is pumped to a reservoir from which it is pumped to the heat exchangers with 550 gallon per minute (GPM) pumps. The renewal application and previous licensing action indicate a normal daily flow is 792,000 gpd with a peak flow of 1,584,000 gpd during certain maintenance periods when two or more generating units are operated simultaneously. Ninety-nine per cent of the time, the 792,000 GPD of cooling water is sufficient to satisfy plant requirements.

Up to 3,400 gallons per year of fresh water "contact" cooling water from the cooling system of the diesel engines may be discharged to the cooling water detention pond near the northwesterly end of building No. 103. A chemical inhibitor N-101, produced by Barclay Chemical, is added to the "contact" cooling water at a concentration level of 1,500 to 2,000 parts per million (ppm). Sodium hypochlorite or AL-15, may be added to the cooling water when bacteria is detected in the fresh water supply. Biocide-BM with similar properties as AL-15 has also been used in the cooling water.

Additionally, up to 18,000 gallons per year of intermediate non-contact cooling water to which a chemical inhibitor N-101, produced by Barclay Chemical, is added at a concentration level of 1,500 to 2,000 parts per million (ppm) may be discharged to the cooling water detention pond near the northwesterly end of building No. 103. Sodium hypochlorite or AL-15, may be added to the cooling water when bacteria is detected in the fresh water supply. Biocide-BM with similar properties as AL-15 has also been used in the cooling water.

In 1991 the applicant installed an oil/water separator to treat precipitation and/or precipitation melt water (referred to as stormwater in the remainder of this license) from an existing fuel farm. The fuel oil farm consists of two 315,000 gallon tanks and one 210,000 gallon tank, each located in a plastic lined, bermed containment area. The bermed containment areas are hard piped to the oil/water separator and the flow from each is controlled by a hand valve. After each bermed area is inspected and found free of any oil or oil sheen, the valve is opened and the stormwater is routed through the oil/water separator which discharges to Machias Bay via a drainage ditch.

In 1996 an oil/water separator, with an estimated annual discharge of 232,000 gallons of stormwater, was installed as a part of the fuel truck off-loading facility and treats the stormwater collected within the bermed area of the off-loading facility. This separator discharges to the bermed area of the fuel farm and after passing through the fuel farm oil/water separator, the stormwater from the fuel truck off-loading facility is discharged to Machias bay with the treated fuel farm stormwater. A third oil water/separator which services four transit tanks and is located almost directly south from the detention pond discharges to the detention pond. This discharge will not be sampled directly, but the discharge from the detention pond will be sampled for TSS and oil and grease.

Each year during normal maintenance, during the non-heating season, 2,600 gallons of fresh water mixed with boiler residue, known as "boiler drain-down" water is discharged to the detention pond near the northwesterly end of building No. 103. A chemical inhibitor N-101, produced by Barclay Chemical, is added at a concentration level of 1,500 to 2,000 parts per million (ppm) to the boiler water for corrosion protection. Sodium hypochlorite or AL-15, may be added to the cooling water when bacteria is detected in the fresh water supply. Biocide-BM with similar properties as AL-15 has also been used in lieu of AL-15.

Two or three times a week, the drinking water filters are backwashed with 7,000 to 10,000 gallons of drinking water which is collected in an 8,000 gallon tank and pumped to a sand filter bed where it infiltrates into the ground. Approximately 3,000 gallons of fresh water from the effluent well is used to "set" the sand contained in the filters. This water is not treated with chlorine or fluoride and is also discharged to the 8,000 gallon tank noted above and pumped to the sand filter bed.

The Department acknowledges that adjacent to Outfall #001 is a pipe that discharges overflow waters from a saltwater reservoir. The flow and pollutant loadings associated with the discharge are considered *de minimus* by the Department. Therefore, no limitations or monitoring requirements are being established for this discharge.

As part of the 11/22/05 application, the permittee has requested the following description of the modifications that have been implemented since the previous licensing action be included in the Fact Sheet:

In this application for renewal, the following modifications have been incorporated into the renewal application to reflect changes made to operational functions within the power plant complex during the intervening years:

- 1. Installation of a Radiator System for Cooling Navy Generators.
- 2. Addition of Two (2) Generating Units with Non-contact Cooling Water Requirements.
- 3. Placement of a Fourth Oil-Water Separator to Treat Oily Products from Power Plant.
- 4. Revision to Standard Operating Procedure (SOP) for the maintenance of Oil-Water Separators and Secondary Containment Berms.

Elements of the present permit will remain the same and will be supplemented by the aforementioned modifications to the mode of operation at the power plant. The operation of a sand filter bed has also been removed from the license since this property has been transferred to a different owner.

Since the issuance of a discharge permit, personnel from Maine DEP have officially inspected the facility on three occasions (30 April 2002,20 May 2004, and 2 June 2005) and they have provided guidance /interpretations on two critical issues; i.e., release of chlorinated contact cooling water and the resolution of inconsistencies with monitoring values for total suspended solids (TSS). As part of the on-going requirements for the 2000 permit, Maine DEP personnel have accepted the results of a thermal study, approved operating procedures for the maintenance of oil-water separators, and acknowledged modifications made to the conceptual content of the 2000 permit to ensure compliance with the terms of the current permit.

Personnel from Maine DEP have reviewed plans for the air-cooled radiator system which was placed into operation nearly twelve months ago [fall 2004]. The recommendations offered in inspection reports have been and will be followed in accordance with present practices.

With respect to the four modifications listed above, details will be provided below as supporting documentation for the review of the application and the establishment of compliance requirements.

1. <u>Installation of Radiator System</u> - As an option to the non-contact cooling of generating units by seawater circulation, an air-cooled radiator system was installed for four of the five generating units at the power plant in 2004. As a basic description of the air-cooled system, an array of fans installed on vertical supports on the westerly side of the power plant will direct cool outside air onto adjacent heat exchangers for maintaining an acceptable temperature in the circulating coolant (i.e., antifreeze/ water mixture). Coolant circulated through the outside exchangers will then absorb heat from the diesel engines through an internal set of exchangers. The purpose of the close-looped cooling system is to maintain an acceptable temperature profile for non-contact and contact water used to stabilize thermal conditions for diesel engines within Building No. 103. With the completion of the new closed-loop exchange system, sea water will be replaced by an air--cooled, closed-looped antifreeze system as the heat sink for fresh water circulated through diesel engines. In accordance with present plans, one of the five diesel engines in Building No. 103 will continue to utilize sea water as a coolant. The remaining four engines will eventually be linked with the air cooled system within the next two years.

The Navy wishes to retain the ability to use tidal waters for non-contact cooling water at the present rate of 1,584,000 gallons per day to meet reliability objectives. The Navy acknowledges that the utilization of seawater continues to be a critical element for the remaining engine without connectivity to the radiation system and that seawater still provides the primary source of water for fire fighting purposes within the power plant complex. Concerns associated with the potential discharge of ethylene glycol have been addressed by the construction of internal and external containment berms. The Navy is proposing to monitor the concentration of ethylene glycol from the containment berms as a form of mass / material conservation. By monitoring the replenishment rate of ethylene glycol within the system and by implementing a regular schedule of inspections. Navy personnel will use this information to determine when on-site analytical quantification of ethylene glycol concentration will be performed to supplement visual observations before releasing the contents of the containment berms into the detention pond and directly to the environment. The presence of ethylene glycol will result in the disposal of the mixture off-site in accordance with Maine DEP regulations. An established protocol will be followed by base personnel to properly respond to any indicators for the release of ethylene glycol. During the establishment of an interior berm for ethylene glycol/ a decision was made to install a fourth oil-water separator to treat an oilyresidue that periodically flowed into the detention pond without treatment; however, potentially ethylene glycol tainted water will not be directed through the oil-water separator. Experience with the system to date has indicated an extremely tight circulation loop with an ability to quickly detect spot leaks.

2. Addition of Two (2) Generating Units - Since the submittal of the original permit application, two small diesel engines were identified as being dependent on seawater as a cooling medium. The 120 kW diesel generator in the basement of Building No. 123 is presently out-of-commission and personnel are waiting for parts to repair the unit. The diesel unit was initially installed as an emergency source of power in the event of electrical service interruption; however, the unit also provides supplemental power for supplying seawater to remote hydrants. Characterization of this wastewater is based on results from the smaller 52 hp generator located in Building 122. A corrective action plan for the new discharge line installed for Building No. 123 has been prepared to ensure compliance with DEP standards. The 52 hp diesel unit at the end of the fuel pier in Building No. 122 also depends on contact cooling water and discharges directly back to tidal waters. This unit also serves as an emergency source of power and has been characterized and included in the application. Though both units are only used on an extremely infrequent basis, the permit application has been modified to enable the use of the diesel engines under emergency conditions.

3. Placement of a Fourth Oil-Water Separator - The discovery of the discharge of an oily residue within the seawater tunnel during the establishment of an interior berm for the ethylene glycol required the installation of an oil-water separator to treat this periodic discharge. A standard operating procedure for maintaining oil water separators and containment berms has been prepared to ensure the proper utilization of the unit in accordance with manufacture specifications. The outfall of the oil-water separator leads to the detention pond and represents an additional flow to one of the detachment's historical discharge point; i.e., No. 001.

See Attachment B of this Fact Sheet for additional source description information.

e. <u>Wastewater Treatment</u>: All cooling water is discharged (Outfall 001) to a pond approximately 8 feet wide by 40 feet long and 18 to 24 inches deep. The pond contains two granite blocks, and six untreated poles at the pond surface, at approximately five foot intervals and perpendicular to the water flow, to diffuse the velocity profile of the discharge water.

Stormwater from the bermed fuel farm is discharged (Outfall 002) through a 375 GPM oil/water separator installed in 1991. Stormwater from the truck off-loading facility passes through the an oil/water separator, installed in 1996, which discharges to the bermed area of the fuel farm, where it is discharged with the fuel farm stormwater, through the fuel farm oil/water separator to Holmes Bay.

All sanitary waste water generated by employees at the facility is disposed of in an on-site sub-surface waste water disposal system.

4. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, Surface Water Toxics Control Program, require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, Surface Water Quality Criteria for Toxic Pollutants, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

5. RECEIVING WATER QUALITY STANDARDS

Maine Law, 38 M.R.S.A., Section 469, classifies the tidal waters of Machias Bay at the point of discharge as a Class SB waters. Maine Law, 38 M.R.S.A., Section 465-B(2) describes the classification standards for Class SB waters.

6. RECEIVING WATER CONDITIONS

A document entitled, <u>The State of Maine</u>, <u>Department of Environmental Protection</u>, <u>2004</u> <u>Integrated Water Quality Monitoring and Assessment Report</u> (305b) report published by the Department indicates Machias Bay in the vicinity of the discharges from the Cutler facility is meeting the standards of its assigned classification.

7. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall #001—Cooling/non-contact cooling water, non- process waste waters and storm water runoff.

- a. Flow The previous licensing action established a daily maximum limitation of 1.584 MGD which the permittee has requested to be carried forward in this permitting action. A review of the Discharge Monitoring Report (DMR) data for the most recent three year period (2003 2005) indicates the daily maximum flow limitation has never been exceeded. The daily maximum limit of 1.584 MGD is being carried forward in this permitting action and is considered to be representative of the daily maximum discharge flow.
- b. Total Suspended Solids (TSS) The previous licensing action established a daily maximum concentration limitation of 50 mg/L. The origin of the limit is unknown. A review of the DMR data for the most recent three year period (2003 2005) indicates the daily maximum TSS concentration has ranged from <1 mg/L to 14 mg/L with an arithmetic mean of 5.1 mg/L. This permitting action is carrying forward the daily maximum limit of 50 mg/L limit.

Department rule 06-096 CMR Chapter 523 Section 6.f. states that all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass. With a monthly average discharge flow limit of 1.584 MGD this permitting action is establishing a daily maximum mass limitation for TSS, which was derived as follows:

Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./day)(1.584 MGD) = 660 lbs./day

c. <u>Temperature</u> - The previous licensing action established a daily maximum temperature limitation of 75°F. Department rule Chapter 582 Section 5, *Tidal Water Thermal Discharges*, states "No discharge of pollutants shall cause the monthly mean of the daily maximum ambient temperatures in any tidal body of water, as measured outside the mixing zone, to be raised more than 4 degrees Fahrenheit, nor more than 1.5 degrees Fahrenheit from June 1 to September 1. In no event shall any discharge cause the temperature of any tidal waters to exceed 85 degrees Fahrenheit at any point outside a mixing zone established by the board." According to the permittee's 11/22/05 application for permit renewal, the daily maximum temperature discharged for the summer months has been 71°F and for the non-summer months has been 72°F for the most recent

7. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Outfall #001—Cooling/non-contact cooling water, non- process waste waters and storm water runoff.

12-month period. During that same period, the arithmetic mean summer temperature of the discharge has been 53°F and the non-summer temperature has been 46°F. This permitting action is carrying forward the daily maximum temperature limit of 75°F as being representative of the discharge.

- d. Total Residual Chlorine (TRC) The previous licensing action established a daily maximum limitation of 0.1 mg/L. The origin of the limit is unknown but is consistent with the Department's best practicable treatment (BPT) limitation for facilities that dechlorinate waste waters prior to being discharged to the receiving waters. That is not the case with the discharge from the Cutler facility. As indicated in Section 3 of this Fact Sheet, sodium hypochlorite may be used as a general biocide agent in the fresh water contact cooling portion of this waste stream if necessary. A review of the DMR data for the period (2003 2005) indicates TRC has not been monitored for in the entire period as the use of sodium hypochlorite has not been necessary. Therefore, this permitting action only requires monitoring for TRC if sodium hypochlorite, elemental chlorine or chlorine based compounds are utilized as a biocide. In addition, because the facility does not dechlorinate the discharge, this permitting action is establishing its BPT daily maximum concentration limit of 1.0 mg/L.
- e. Oil & grease The previous licensing action established a daily maximum concentration limitation of 15 mg/L. The limit is consistent with the daily maximum oil & grease limits established for other like dischargers and is the threshold at which said discharges will cause a visible oil sheen in the receiving water. A review of the DMR data for the most recent three year period (2003 2005) indicates the daily maximum concentration of oil and grease discharged has ranged from <1 mg/L to 2 mg/L. The daily maximum limit of 15 mg/L is being carried forward in this permitting action.
- f. pH The previous licensing action established a daily maximum pH range limitation of 6.0-8.5 standard units. The limit is consistent with the daily maximum pH range limits established for other like dischargers and is consistent with Maine law 38 MRSA, Section 464.4.A.(5). A review of the DMR data for the most recent three year period (2003 2005) indicates the pH of the discharge has been in compliance with the pH range limitation and is being carried forward in this permitting action.

Outfall #002 – Storm water runoff

g. <u>Flow</u> - The previous licensing action established a daily maximum flow limitation of 375 gpm based on the design capacity of the oil/water separator. The limit is being carried forward in this permitting action. A review of the DMR data for the most recent three year period (2003 – 2005) indicates the daily maximum flow limitation has never been exceeded.

7. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Outfall #002 – Storm water runoff

- h. Oil & Grease The previous licensing action established a daily maximum concentration limitation of 15 mg/L. The limit is consistent with the daily maximum oil & grease limits established for other like dischargers and is the threshold at which said discharges will cause a visible oil sheen in the receiving water. A review of the DMR data for the most recent three year period (2003 2005) indicates the daily maximum concentration of TRC discharged has ranged from <1 mg/L to 3 mg/L. The daily maximum limit of 15 mg/L is being carried forward in this permitting action.
- i. Total suspended solids The previous licensing action established a daily maximum concentration limitation of 50 mg/L. The origin of the limit is unknown. A review of the DMR data for the most recent three year period (2003 2005) indicates the daily maximum TSS concentration has ranged from <1 mg/L to 7 mg/L with an arithmetic mean of 3.4 mg/L. This permitting action is carrying forward the daily maximum limit of 50 mg/L limit as being representative of the discharge.

Department rule 06-096 CMR Chapter 523 Section 6.f. states that all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass. With a monthly average discharge flow limit of 0.540 MGD [375 gpm (1,440 min/day) = 540,000 gal/day or 0.540 MGD] this permitting action is establishing a daily maximum mass limitation for TSS, which was derived as follows:

Daily Maximum Mass Limit: (50 mg/L)(8.34 lbs./day)(0.540 MGD) = 255 lbs./day

(New) Outfall #003 & Outfall #004 - Non-contact cooling water

Per the request of the permittee, this permitting action is authorizing the periodic discharge of no-contact cooling water (sea water) associated with the two emergency generators. Limitations and monitoring requirements are as follows:

- j. <u>Flow</u> This permitting action is establishing a daily maximum flow limitation of 10 gpm for each outfall based on an estimate by the permittee of a representative flow.
- k. Oil & grease This permitting action is establishing a daily maximum concentration limitation of 15 mg/L. The limit is consistent with the daily maximum oil & grease limits established for other like dischargers and is the threshold at which said discharges will cause a visible oil sheen in the receiving water.

8. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing and designated water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the waterbody to meet standards for Class SB classification.

9. PUBLIC COMMENTS

Public notice of this application was made in the Downeast Coastal newspaper on or about November 14, 2005. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing pursuant to Chapter 522 of the Department's rules.

10. DEPARTMENT CONTACTS:

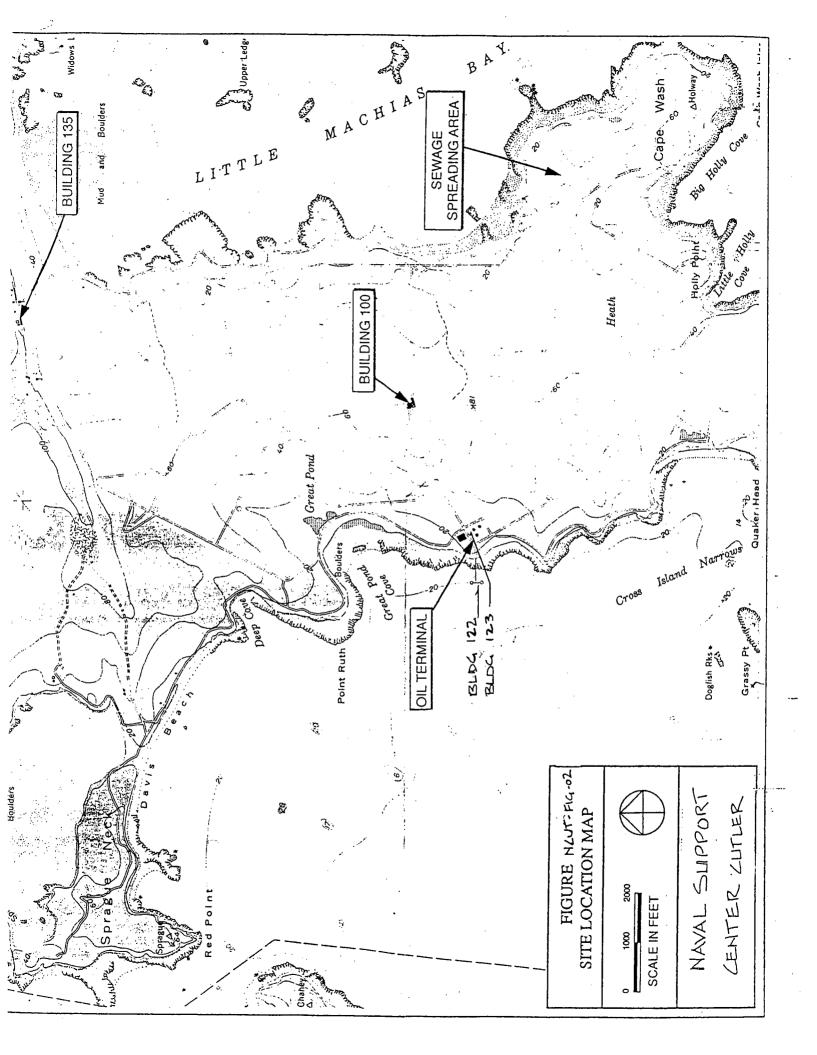
Additional information concerning this permitting action may be obtained from and written comments should be sent to:

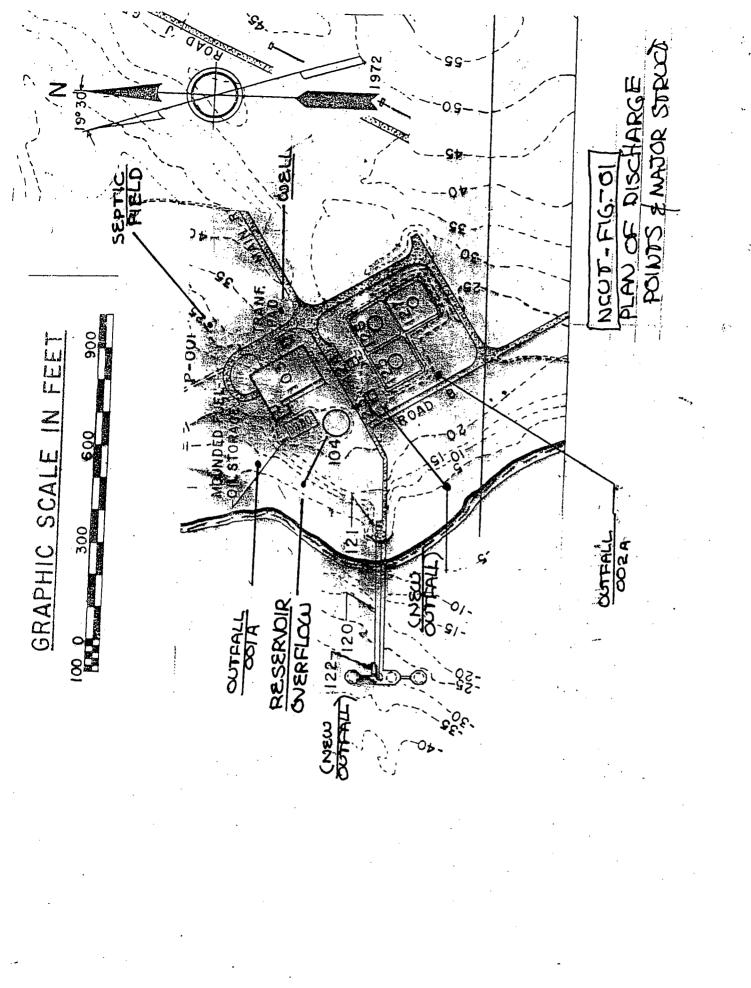
Gregg Wood
Division of Water Resource Regulation
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
Email: gregg.wood@maine.gov
Telephone (207) 287-3901

11. RESPONSE TO COMMENTS

During the period of November 29, 2005 through the date of issuance of this permit, the Department solicited comments on the proposed draft MEPDES permit/WDL for the discharge from the discharges from the Naval Computer And Telecommunications Area Master Station Atlantic Detachment Cutler facility. The Department did not receive comments from the permittee, state or federal agencies, or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments

ATTACHMENT A





ATTACHMENT B

ATTACHMENT NCUT-5

Response to Question (No. 17 - 22) for Outfall and Treatment Information

No. 17 - Description of Each Discharge Location

NUMBER	LOCATION / DESCRIPTION	VOLUME [GAL / DAY]	RECEIVING WATERS
EXISTING 001A	DETENTION POND	36,000,000 [NC] & CONTACT [21,400 GAL/YR]	MACHIAS BAY FROM DETENTION POND
EXISTING 002A	BULK FUEL TANKS	LIMIT OF 375 GALLON PER MINUTE FROM OIL- WATER SEPARATOR	MACHIAS BAY FROM OIL-WATER SEPARATOR
NEW [1]	BLDG. NO. 122 / ENGINE COOLING WATER	MAXIMUM RATE OF 7 GALLON PER MINUTE	MACHIAS BAY FROM ENGINE COOLING WATER SOURCE
NEW [2]	BLDG. NO. 123 / ENGINE COOLING WATER	EST. 7 GPD BASED ON NEW[1]	MACHIAS BAY FROM ENGINE COOLING WATER SOURCE

Position of discharge points are defined below:

NUMBER	LATITUDE (DD/SS/MM)	LONGITUDE (DD/SS/MM)
EXISTING 001A	44/38/34 [N]	67/17/40 [W]
EXISTING 002A	44/38/28 [N]	67/17/37 [W]
NEW [1]	44/38/28 [N]	67/17/47 [W]
NEW [2]	44/38/28 [N]	67/17/42 [W]

Type of discharge points:

NUMBER	DESCRIPTION	SOURCE
EXISTING 001A	DISCHARGE FROM	NON-CONTACT COOLING
	DETENTION POND	WATER, CONTACT COOLING
		WATER, TWO OIL-WATER
		SEPARATORS, BOILER
·		BLOW-DOWN, WASTE
		PRODUCT FROM REVERSE
		OSMOSIS UNIT,
		STORMWATER
EXISTING 002A	DISCHARGE FROM OIL-	STORMWATER FROM BERMS
•	WATER SEPARATOR	FOR BULK FUEL TANKS
		AND TANK OFF-LOADING
		OPERATIONS
NEW [1]	COOLING WATER FOR 45	SEA WATER
	hp EMERGENCY POWER	
	GENERATOR	
NEW [2]	COOLING WATER FROM 120	SEA WATER
	kw emergency power	
	GENERATOR	

No. 18 - Intermittent or Seasonal Discharges:

NUMBER	TYPE	
	TIPE	NATURE / CIRCUMSTANCE
		/ DURATION
EXISTING 001A	CONTINUOUS WITH	INTERMITTENT DEPENDING
	VARIATION IN INTENSITY	ON SCHEDULE FOR
	DUE TO INCLUSION OF	RELEASE OF CONTACT
	SOURCES OTHER THAN	COOLING WATER,
	NON-CONTACT COOLING	STORMWATER INCIDENTS,
	WAŢER	AND MAINTENANCE
		OPERATIONS (< 5% OF
		TOTAL CONTINUOUS FLOW)
EXISTING 002A	INTERMITTENT	DISCHARGE COORDINATED
	·	WITH RELEASE OF WATER
		FROM OIL-WATER
	,	SEPARATOR (< 375 GAL
•		PER MINUTE FOR < 250
27777 54 2		HOURS PER YEAR)
NEW [1]	INTERMITTENT	DISCHARGE DURING
		PERIOD OF EMERGENCY
·		POWER GENERATION (< 7
		GALLON PER MINUTE FOR
NYTY (O)		< 100 HOUR PER YEAR)
NEW [2]	INTERMITTENT	DISCHARGE DURING
		PERIOD OF EMERGENCY
		POWER GENERATION (EST.
		AT < 7 GALLON PER
·		MINUTE FOR < 100 HOUR
		PER YEAR)



DEP INFORMATION SHEET

Appealing a Commissioner's Licensing Decision

Dated: May 2004

Contact: (207) 287-2811

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner: (1) in an administrative process before the Board of Environmental Protection (Board); or (2) in a judicial process before Maine's Superior Court. This INFORMATION SHEET, in conjunction with consulting statutory and regulatory provisions referred to herein, can help aggrieved persons with understanding their rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

DEP's General Laws, 38 M.R.S.A. § 341-D(4), and its Rules Concerning the Processing of Applications and Other Administrative Matters (Chapter 2), 06-096 CMR 2.24 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written notice of appeal within 30 calendar days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner and the applicant a copy of the documents. All the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

The materials constituting an appeal must contain the following information at the time submitted:

- 1. Aggrieved Status. Standing to maintain an appeal requires the appellant to show they are particularly injured by the Commissioner's decision.
- 2. The findings, conclusions or conditions objected to or believed to be in error. Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
- 3. The basis of the objections or challenge. If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
- 4. The remedy sought. This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.

- 5. All the matters to be contested. The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
- 6. Request for hearing. The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
- 7. New or additional evidence to be offered. The Board may allow new or additional evidence as part of an appeal only when the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or show that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2, Section 24(B)(5).

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

- 1. Be familiar with all relevant material in the DEP record. A license file is public information made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
- 2. Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal. DEP staff will provide this information on request and answer questions regarding applicable requirements.
- 3. The filing of an appeal does not operate as a stay to any decision. An applicant proceeding with a project pending the outcome of an appeal runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge initiation of the appeals procedure, including the name of the DEP project manager assigned to the specific appeal, within 15 days of receiving a timely filing. The notice of appeal, all materials accepted by the Board Chair as additional evidence, and any materials submitted in response to the appeal will be sent to Board members along with a briefing and recommendation from DEP staff. Parties filing appeals and interested persons are notified in advance of the final date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision. The Board will notify parties to an appeal and interested persons of its decision.

II. APPEALS TO MAINE SUPERIOR COURT

Maine law allows aggrieved persons to appeal final Commissioner licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2.26; 5 M.R.S.A. § 11001; & MRCivP 80C. Parties to the licensing decision must file a petition for review within 30 days after receipt of notice of the Commissioner's written decision. A petition for review by any other person aggrieved must be filed within 40-days from the date the written decision is rendered. The laws cited in this paragraph and other legal procedures govern the contents and processing of a Superior Court appeal.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, contact the DEP's Director of Procedures and Enforcement at (207) 287-2811.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.